Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Transforming the 2.5 GHz Band	)	WT Docket No. 18-120

To: The Commission

REPLY COMMENTS OF THE WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION

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Summary

The record in this proceeding confirms that the time has come for the Commission to discard outdated rules and policies, and to inject new life into the 2.5 GHz band, creating new opportunities for investment, deployment, and competition, especially in rural areas where Educational Broadband Service ("EBS") spectrum has lain fallow for more than 20 years. Along with a host of other commenters, the Wireless Internet Service Providers Association ("WISPA") urges the Commission to take the dramatic steps that are now necessary to provide existing licensees with greater flexibility and make the 2.5 GHz viable for fixed wireless broadband service.

The record overwhelmingly supports expansion of Geographic Service Areas ("GSAs") to the overlapping county border. Unlike expansion to census tract boundaries, county-based expansion will eliminate many irregular slivers that would otherwise remain and will also facilitate county-based competitive bidding for unassigned EBS spectrum.

Commercial interests support the Commission's proposals to create flexibility for licensees by eliminating (1) the educational use requirement, (2) restrictions on the assignability and transferability of EBS licenses, and (3) the 30-year maximum term for excess capacity lease terms. Opposition to these rule changes comes largely from the current EBS community, which recites hyperbolic fears of a *de facto* re-allocation of EBS spectrum while generally seeking to preserve the *status quo*. Their arguments miss the point. The Commission is foremost charged with serving the broader public interest in ensuring more efficient and intensive use of the band, not the narrow interest of protecting a single group of educators. And, even so, licensees would retain the benefit of their excess capacity leases and the flexibility to stay the course.

Commercial interests also favor auctioning unassigned 2.5 GHz spectrum over the recycled local priority filing window approach that educators support. As commenters stated, commercial operators are best positioned to put the spectrum to use; educators would be much more inclined, as they have in the past, to acquire licenses merely to establish themselves as middlemen that lease their spectrum not for genuine educational purposes, but for internet access service that is indistinguishable from commercial broadband service.

WISPA was one of a few commenters that proposed a comprehensive auction mechanism. WISPA's recommended approach would auction unassigned spectrum according to counties, contrary to the self-serving views of large mobile carriers that seek nationwide or large-area licensing that would effectively prohibit small broadband providers from acquiring licenses targeting small communities that lack broadband service or choice. WISPA's proposal for auctioning available spectrum in four blocks of contiguous channels, with a reasonable restriction on the amount of spectrum any bidder can acquire in a given county, will ensure that small, rural providers will have an opportunity to bid for spectrum – a significant opportunity given that the available spectrum covers large rural areas of the country.

The record also supports adoption of reasonable performance requirements and application of the Commission's wireless service renewal and permanent discontinuance rules to new 2.5 GHz licenses.

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The Wireless Internet Service Providers Association ("WISPA"), pursuant to Sections 1.415 and 1.419 of the Commission's Rules, hereby replies to certain of the initial Comments filed in response to the Notice of Proposed Rulemaking ("*NPRM*") in the above-captioned proceeding.[1]

The record presents a clear choice in how the Commission should modify its Educational Broadband Service ("EBS") rules. On one hand, the educational community asks the Commission to cling to outdated rules and policies that will continue to enrich middlemen through a contrived leasing model that has historically proved to drag down development of the 2.5 GHz band from its full potential, especially in rural areas where unassigned EBS spectrum is available. On the other hand, commercial interests largely urge the Commission to strip away unneeded regulatory relics from the 1960s to enable robust development of the spectrum – whether currently licensed or unassigned – in order to maximize its potential to help bridge the digital divide and offer competitive alternatives to broadband access.

[1] *See Transforming the 2.5 GHz Band,* Notice of Proposed Rulemaking, WT Docket No. 18-120, FCC 18-59 (rel. May 10, 2018) ("*NPRM*"). The *NPRM* was published in the Federal Register on June 7, 2018. *See* 83 Fed. Reg. 26396 (June 7, 2018). The Commission granted in part requests for extension of time and set September 7, 2018 as the deadline for filing Reply Comments. *See Order*, WT Docket No. 18-120, DA 18-647 (rel. June 21, 2018).

The record demonstrates broad agreement with WISPA's view that the time has come for the Commission to take the long overdue step of modernizing its 2.5 GHz rules. There is no sound policy reason to maintain strict eligibility and usage requirements for a band that, if unshackled from such burdens, can be a powerful tool to enable fixed broadband service to millions of unserved rural Americans. As supported by the record, the essential components of this regulatory shift are as follows:

- Extend Geographic Service Area ("GSA") boundaries for existing EBS licensees to the overlapping county border.
- Eliminate rules requiring minimum educational use and limiting EBS excess capacity lease terms, consistent with the terms of existing leases.
- Permit EBS licensees to assign their licenses to commercial entities.
- Auction unassigned EBS spectrum by county in sufficiently sized and configured spectrum blocks.
- Adopt performance, renewal and permanent discontinuance rules that are harmonized with those applicable to other wireless services.

Adopting these changes to the rules would be consistent with the Commission's overarching public interest objectives – "making additional spectrum available for flexible use" and "encourag[ing] and facilitat[ing] more efficient use of this spectrum"[2] for the benefit of consumers that lack broadband access or would benefit from competitive choice. By contrast, preserving the existing regulatory regime would serve, if at all, the narrow interests of a single class of educators. In considering the record in this proceeding, the Commission should remain mindful of the benefits of making the 2.5 GHz band available to support broad, public policy purposes and not the parochial concerns of licensees motivated by their private interests in the status quo.

[2] *NPRM* at 5-6 (¶ 9).

The need to remove regulatory obstacles to foster investment in the 2.5 GHz band is even more critical today than when this proceeding began just a few months ago. In the recently concluded Connect America Fund ("CAF") Phase II reverse auction, bidders with a history of deploying fixed wireless broadband networks won more than 50 percent of the $1.488 billion in support to cover about 40 percent of the census blocks that will receive support.[3] The ability of these auction winners to gain access to licensed 2.5 GHz spectrum as well as acquire unassigned spectrum that conveniently covers areas designated for support is a phenomenon the Commission should not ignore.

Discussion

I. THE RECORD SUPPORTS RULE AMENDMENTS THAT WOULD MAXIMIZE THE UTILITY AND FLEXIBILITY OF EXISTING EBS LICENSES

A. Existing EBS Rules Are Outdated And Do Not Support Modern Educational Needs Or Commercial Opportunities

WISPA agrees with the many comments filed in this proceeding demonstrating that the current EBS licensing regime has long outlived its purpose and should be overhauled in a manner that will unleash long-underutilized spectrum for commercial broadband deployment, especially in rural areas. Comments from many parties, including some from the current EBS licensee community, show that the development of EBS for educational purposes either has not lived up to its promise or is no longer appropriate, with the result being that educational and commercial uses of EBS spectrum have become virtually indistinguishable. Accordingly,

[3] *See Public Notice*, "Connect America Fund Phase II Auction (Auction 903) Closes," AU Docket No. 17-182 and WC Docket No. 10-90, DA 18-887 (rel. Aug. 28, 2018), at Attachment A. Those winning bidders that have deployed broadband over fixed networks include Air Link Rural Broadband, LLC; AMG Technology Investment Group LLC; ArisWave Consortium; Benton Ridge Telephone Company; Broadband Corp.; Cal.net, L.P.; California Internet, L.P.; Crystal Automation Systems, Inc.; Declaration Networks Group, Inc.; Inventive Wireless of Nebraska, LLC; Midcontinent Communications; Newmax, LLC dba Intermax Networks; Total Highspeed LLC; and Wisper ISP, Inc. Many of these are members of WISPA.

WISPA encourages the Commission to end the long-perpetuated and erroneous premise that development and use of the 2.5 GHz band requires that educational institutions be artificially inserted as middlemen who must stand sentry over a bygone relic.

The consensus of many commenters is that the current EBS rules are 1960s-era vestiges that create inefficiencies in the way valuable 2.5 GHz spectrum is being used. The resulting distortions negatively impact educational licensees and the commercial entities to which they generally lease almost all the spectrum usage rights afforded to them. As the Wireless Communications Association International ("WCA") correctly recounts, the current EBS rules are the progeny of decades old policies that were designed to promote the distribution of educational content – such as classroom-oriented video programming – on educational campuses and at remote learning sites.[4] While these policy objectives were laudable, educational institutions generally did not embrace the use of EBS (then known as ITFS), which led to much of the EBS spectrum being underdeveloped or unused. Then, as now, and through no fault of their own, "educators [we]re ill-equipped to bear the costs and face the operational complexities associated with constructing and operating their own transmission facilities."[5] Institutions focused on educating the citizenry cannot also be expected to design and construct highly technical, resource-intensive wireless networks. Moreover, in an era of budget restrictions and soaring educational costs, educators must focus on their core missions, which generally requires allocating their limited resources elsewhere. The bottom line, as WCA correctly summarizes, is

[4] *See* Comments of Wireless Communications Association International, WT Docket No. 18-120 (filed Aug. 8, 2018) ("WCA Comments"), at 7-8.
[5] *Id*. at 7-8. *See also* Comments of Gallatin Wireless Internet, LLC, WT Docket No. 18-120 (filed Aug. 8, 2018) ("Gallatin Comments"), at 2 ("very few educational institutions had the money, the technical know-how, or the desire to put the spectrum to use."); Comments of R Street Institute, WT Docket No. 18-120 (filed Aug. 8, 2018) ("R Street Comments"), at 4 ("EBS licensees have little expertise in using this spectrum.")

that "by and large educators possess neither unique capabilities that justify limiting [EBS] eligibility nor the resources necessary"[6] to construct and operate broadband networks.

Despite clear evidence that the ITFS/EBS scheme is not working as planned, for decades a fiction has continued to be propagated that licensing EBS spectrum solely to educational institutions is necessary to the development of the 2.5 GHz spectrum. Today, the EBS rules stand as outdated "command and control"[7] relics that hinder efficient development of the band. This has led to a situation where the majority of EBS licensees usually make little real "educational" use of their allocated spectrum, instead delegating to commercial lessees the design, construction, and operation of wireless transmission facilities. In most cases, the extent of EBS licensees' use of the spectrum is to "rid[e] over-the-top of the commercial network"[8] constructed by these lessees, providing the same internet access as their commercial lessees. In sum, today "the EBS is educational in name only"[9] – educational and commercial use of EBS spectrum has become practically indistinguishable.[10] This duplication of services cannot have been the intent of the EBS rules in the 1960s, and in no way "achieve[s] efficiencies in terms of spectrum utilization"[11] in the modern networks of the 2010s.

Despite hyperbolic claims that the current EBS rules are "a resounding success"[12] and "a wonderful success story,"[13] the reality is that with few exceptions, this is not the case. In only a handful of instances have EBS licensees built out facilities that are directly focused on providing

[6] WCA Comments at 9.
[7] *NPRM*, Statement of Commissioner Brendan Carr.
[8] WCA Comments at 8.
[9] Gallatin Comments at 1.
[10] Comments of WISPA, WT Docket No. 18-120 (filed Aug. 8, 2018) ("WISPA Comments"), at 12.
[11] Joint Comments of National EBS Association and Catholic Technology Network, WT Docket No. 18-120 (filed Aug. 8, 2018) ("NEBSA/CTN Comments"), at 5.
[12] *Id*. at 7
[13] Joint Comments of South Florida EBS Licensees, WT Docket No. 18-120 (filed Aug. 8, 2018) ("South Florida EBS Licensees Comments"), at 4-5; s*ee also* Comments of Voqal, WT Docket No. 18-120 (filed Aug. 8, 2018) ("Voqal Comments"), at 9 ("The results have been a policy success story.")

uniquely educational services. Instead, "the vast majority of EBS licensees have evidenced no interest in building and operating their own facilities,"[14] and have turned over their spectrum, basically carte blanche, to commercial wireless providers for which EBS spectrum is a valuable resource. In the end, current EBS licensees often take a "raw feed" of the consumer-end product that is provided by the commercial providers that have built out the spectrum, make no modification or enhancement of the product, and then re-offer it as an "educational" service. This is part of the overall "EBS charade"[15] that creates an unnecessary "drag on efficiency"[16] – an artificial barrier to ensuring the highest and best use of the 2.5 GHz band.

Certain members of the EBS community state that they are "considering" using EBS spectrum to provide additional educational offerings,[17] and imply that historical educator disinterest in fully utilizing EBS may have been because "EBS has only recently come into its own as a tool that is more useful now to education."[18] WISPA respectfully submits that EBS licensees have had adequate time to determine how they might employ EBS spectrum in educational undertakings, and concurs that "the fact that so much of [the EBS spectrum] has lain fallow for so long suggests that incumbents are likely not the most productive users."[19]

Others commenters claim that "[e]ducational use of the [EBS] licenses is . . . growing."[20] WISPA does not believe that the evidence bears this out. Growth in use of the EBS spectrum has generally been due to build-outs of the spectrum by commercial wireless providers acting as

[14] WCA Comments at 9.
[15] *NPRM*, Statement of Commissioner Michael O'Rielly.
[16] Comments of T-Mobile USA, Inc., WT Docket No. 18-120 (filed Aug. 8, 2018) ("T-Mobile Comments"), at 4.
[17] Initial Joint Comments of the Nebraska Department of Education, et al., WT Docket No. 18-120 (filed Aug. 8, 2018) ("Nebraska Comments"), at 8.
[18] *Id*. at 9.
[19] R Street Comments at 4.
[20] Comments of Educators and Broadband Providers for American Rural Communities, WT Docket No. 18-120 (filed Aug. 7, 2018) ("EBPARC Comments"), at 9.

lessees, not through the efforts of EBS licensees to deploy educational services. Moreover, WISPA does not agree that limiting additional licensing opportunities to a narrow class of educational institutions will lead to "hundreds or perhaps thousands of schools and institutes of higher learning across much of rural America" clamoring to become EBS licensees, leading to a "groundswell of new network construction and jobs."[21] Such wishful speculation cannot be reconciled with the current state of educational content delivery. As described above, the current system of EBS allocation has led to underutilization of the 2.5 GHz band, and educational institutions have rarely committed to using the spectrum for their own genuinely educational purposes. There is no reason to believe that this will change. Instead, the historic underuse of the 2.5 GHz band by educational institutions "emphasizes the necessity of markets in determining the best use of the spectrum,"[22] meaning that licensing of the EBS spectrum should be open to all qualified entities, regardless of educational or non-educational status.

B. The Record Strongly Supports GSA Expansion To County Borders

Nearly all commenters, including those who disagree with WISPA on most other issues, support the Commission's proposal to "rationalize" the GSAs of EBS licenses. Most are in agreement that in doing so, "the Commission should…adopt its alternative proposal to expand GSAs to include the counties covered by or that intersect the GSA."[23] Expanding GSAs to county boundaries is a simple, intuitive approach that will provide immediate clarity to EBS licensees and to consumers who utilize products that are supplied through EBS licenses. As WCA notes, "county boundaries will alleviate consumer confusion regarding the availability of

[21] *Id*. at 3. If construction and jobs are created, they will likely be the results of commercial providers that actually deploy facilities on the spectrum.
[22] R Street Comments at 6.
[23] WISPA Comments at 8.

service," [24] and will be particularly useful in rural areas. Consumers do not and cannot be expected to readily know the boundaries of census tracts, but they are accustomed to products and services being available on a countywide basis.

In addition, using county boundaries will pave the way for more efficient allocation of unassigned 2.5 GHz spectrum. As discussed in Part II below, the record supports assigning new 2.5 GHz licenses by county, so allowing expansion of existing GSAs to county boundaries would create a nationwide, county-based licensing scheme.[25] To the extent the Commission decides to assign new licenses through local priority windows, expanding GSAs to county boundaries would obviate the need for the first filing window.[26]

Moreover, the record shows that expanding only to census tract boundaries will not solve, and may exacerbate, the "operational challenges" of irregular borders[27] – "expansions to such boundaries may produce service areas with small jutting areas or irregular borders that will create interference and service architecture problems."[28] In advocating for GSA expansion to census tract boundaries, the North Carolina Department of Information Technology fails to justify its position or address the problem of irregularly shaped leftovers.[29] By contrast, as the record shows, expanding GSAs to county boundaries, which are a more easily understood geographic measurement that will leave fewer odd-sized gaps, will allow for the more efficient

[24] WCA Comments at 13.
[25] In some cases where existing GSAs cover a relatively small portion of a county, GSAs would not expand to the county boundaries. In these cases, the remaining portion of the county would be made available for future licensing.
[26] *See* WCA Comments at 14 n. 31.
[27] *Id.* at 14.
[28] South Florida EBS Licensees Comments at 9; *see also* Comments of Hispanic Information and Telecommunications Network, Inc., WT Docket No 18-120 (filed Aug. 8, 2018) ("HITN Comments"), at 4-5 ("if expanded only to the nearest census tract, gaps would continue to exist and the service areas for incumbent licensees would become jagged and would remain relatively hard to map.")
[29] *See* Comments of the North Carolina Department of Information Technology, WC Docket No. 18-120 (filed Aug. 8, 2018), at 5.

use of EBS spectrum. Given the strong record support, the Commission should adopt this proposal.

Members of the current EBS community generally agree with the countywide approach to GSA rationalization. The California K-12 High Speed Network asks that GSAs "be based on county boundaries as they align better with school district service areas."[30] Voqal explains that a county-based approach will help ensure that "small slivers of spectrum, such as individual or small clusters of census tracts, [do not] remain unlicensed in between or adjacent to larger license areas."[31] The Commission should reject the views espoused by AASA, which argues that GSAs should not expand because the Commission's Universal Licensing System does not currently map unassigned spectrum.[32] But this "problem" is easily addressed by the GSA expansion that AASA apparently fears because county-based GSAs will make it easier to map and determine the channels and areas that would be available for future licensing of unassigned spectrum. Even so, software limitations should not be an excuse for the Commission to adopt policies that are contrary to sound policy.

GSA expansion should be automatic and should occur before the Commission allocates unassigned EBS spectrum. Requiring licensees to apply to expand GSAs creates a real risk that some licensees may miss the filing window, leaving a regulatory mishmash where some EBS licenses are county-based and others are not, and would unnecessarily require significant administrative resources to process generic, routine modification applications and rule on the inevitable petitions from educators that inadvertently miss the expansion filing window deadline.

[30] Initial Comments by The Imperial County Office of Education/California K-12 High Speed Network, WT Docket No. 18-120 (filed Aug. 8, 2018) ("California K-12 Comments"), at 20.
[31] Voqal Comments at 20.
[32] Comments of AASA, et al., WT Docket 18-120 (filed Aug. 8, 2018) ("AASA Comments"), at 7.

C. Eliminating EBS License And Lease Restrictions Will Promote Investment And Deployment

WISPA strongly agrees with commenters that support granting greater flexibility to current EBS licensees in order to enable those licensees to determine for themselves how best to maximize the benefits of their licenses.[33] This includes eliminating the educational use requirement, granting licensees the right to assign their licenses to all qualified entities including commercial providers, and eliminating artificial restrictions on lease terms.

Educational Use

WISPA concurs that "the current restrictions on [EBS licensing] eligibility have hindered the ability to attract capital for decades"[34] and should be eliminated. Licensees should no longer be required to reserve a certain amount of capacity for "educational" use, particularly in light of the fact that, as recounted above, educational and commercial uses of EBS spectrum have for the most part become indistinguishable. The reality is that "technology and society have evolved in ways that render the [educational use] requirement a drag on efficiency, rather than a means to promote educational goals and the effective use of spectrum."[35] Given how "educational" use of the band has morphed into something closely akin to commercial use, it is certainly not "critical to the future educational use of the band that the Commission retain educational eligibility requirements."[36] Eliminating the educational use requirement will in no way "fatally compromise"[37] the "legacy of EBS," [38] but instead will open up the band to more extensive and

[33] *See, e.g.*, Comments of Sprint Corporation, WT Docket No. 18-120 (filed Aug. 8, 2018) ("Sprint Comments"), at 8-10.
[34] Comments of Bridge the Divide Foundation, Inc. and Rocky Mountain Broadband, LLC, WT Docket No. 18-120 (filed Aug. 8, 2018) ("Bridge Comments"), at 5.
[35] T-Mobile Comments at 4.
[36] Voqal Comments at 14.
[37] NEBSA/CTN Comments at 18.
[38] California K-12 Comments at 21.

efficient development while also protecting the right of incumbent and future educational EBS licensees to use the spectrum for their own unique educational purposes.

It must be reemphasized that EBS licensees will not be foreclosed in any manner from continued educational use of their licensed spectrum by adoption of the Commission's proposal. Licensees that wish to continue utilizing their licenses for educational purposes could do so for as long as they wish, consistent with the terms of their excess capacity lease agreements. In addition, educational institutions could seek additional EBS licenses in the future and use them for any purpose they choose – including direct educational use, or continued leasing to commercial entities. Given the Commission's goal of "[e]nsuring that the radio spectrum is used efficiently and intensively,"[39] the Commission should allow the choice as to educational/non-educational use, and in what combinations or levels, to be made by licensees themselves. Commercial entities should not be foreclosed from direct licensing opportunities if the 2.5 GHz spectrum is to be fully and effectively deployed.

License Assignment

Similarly, EBS licensees should be permitted to freely assign licenses to all qualified parties, including commercial entities, if doing so best supports their educational objectives. While some EBS licensees may be content with the benefits they receive from leasing their spectrum, others may stand to obtain a greater benefit from assigning their licenses to commercial providers, thereby allowing them to "better use the value of the spectrum to serve other [educational] needs,"[40] including enhancement of academic programs and facilities like libraries and science labs. In such instances, "allowing incumbents to sell or assign their licenses is a vastly more efficient mechanism for monetizing the value of their spectrum than is the

[39] *NPRM* at 6 (¶ 10).
[40] Bridge Comments at 5.

current spectrum leasing regime,"[41] and should be permitted by the Commission's rules. Current EBS licensees that do not have their own compelling educational use for the spectrum, and who instead are "riding on" the commercial provider that has constructed and operates the facilities, may find such an opportunity particularly attractive. Licensees should not be denied the opportunity to choose for themselves.

WISPA disagrees with commenters who believe that granting current EBS licensees the ability to make these determinations for themselves will somehow "result in the *de facto* reallocation of EBS from educational to commercial interests."[42] Under the Commission's proposal, the only licenses that will be "reallocated" are those that current educational licensees prefer to relinquish. The Commission does not propose, nor does any commenter advocate, that current EBS licensees be forced to give up their licenses involuntarily, that the benefits of their current licenses be diminished in any way, or that the negotiated terms of existing excess capacity leases be invalidated. To the contrary, current EBS licensees would determine for themselves, and consistent with any excess capacity lease agreements to which they may be subject, whether to continue their current use of the spectrum or whether they would instead benefit from assigning their licenses to commercial entities. As T-Mobile correctly observes, "[n]othing about the proposed changes would preclude licensees who have robust EBS systems from continuing to use those systems to support educational needs and uses, and to further develop those systems."[43]

Moreover, EBS licensees would not be limited to assignments to commercial entities – they would retain the ability to assign their licenses to other noncommercial, educational entities, so that those entities could use the spectrum in support of their educational programs. WISPA

[41] *Id.*
[42] NEBSA/CTN Comments at 17.
[43] T-Mobile Comments at 2.

also believes that the Commission should take no action that would preclude educational institutions from seeking additional EBS licenses in the future, as long as commercial providers are granted equal opportunities to apply for licenses.

Maximum Lease Terms

As a corollary of the right to freely assign licenses, EBS licensees should also have the ability to lease their spectrum on terms they see fit, free from the imposition of artificial contractual restrictions such as limitations on the duration of leases. The current 30-year restriction skews the secondary market for EBS licenses. "Limited terms distort [lessee] investments toward shorter term projects,"[44] whereas the goal of spectrum development should be focused on long-term predictability driven by providers' abilities to respond to market forces as they change. The current restrictions unfairly disadvantage lessees "who may be able to put the spectrum to a productive, long-term use [because they] face uncertainty about whether their plans can be realized."[45] Under the Commission's proposal, licensees that wish to reserve the right to revisit their use of and need for their licenses could continue to do so. WISPA concurs that "a school should have the opportunity to change [an] arrangement with its leasing partner, develop its own network, or partner with a new operator,"[46] but believes that the school should be permitted to do so in a manner most advantageous to it, and on a schedule that best suits its needs. For some educational institutions, especially those that do not employ their own unique uses of the EBS spectrum, such reservation of rights may not be of importance. The EBS rules should not impose artificial contractual terms that may serve to these institutions' disadvantage when attempting to partner with commercial entities to develop the spectrum.

[44] R Street Comments at 7.
[45] *Id.* at 6-7.
[46] EBPARC Comments at 6.

In sum, the record demonstrates that "EBS licensees are best able to determine if they should use their licensed spectrum themselves, enable a commercial lessee to use that spectrum, or divest that spectrum to a non-educational party."[47] The Commission should reform the EBS rules to reflect this reality. In its administration of licenses in almost all other areas, the Commission is loath to insert itself in matters involving private contractual provisions. There is no reason for the 2.5 GHz spectrum, with the promise it holds for development of robust wireless service especially in rural areas, to be treated differently.

II. THE RECORD DEMONSTRATES THAT AUCTIONING EBS SPECTRUM WILL BEST SERVE THE PUBLIC INTEREST

In their comments, WISPA and other commenters representing prospective investors in 2.5 GHz broadband networks criticized proposals that would establish a new priority filing window regime based largely on the current regulatory structure that has stagnated investment and left valuable spectrum on the sidelines. Instead, although there are differences in the proposed details of competitive bidding, commercial interests strongly favor auctioning unassigned EBS spectrum as the best means of promoting the Commission's goals of facilitating more efficient and intensive use of the 2.5 GHz band. The Commission therefore should allocate unassigned 2.5 GHz by auction, consistent with the detailed proposal described in the WISPA Comments.

A. Establishing Local Priority Filing Windows Will Perpetuate Market Inefficiencies For The Benefit Of A Narrow Class Of Eligible Entities At The Expense Of Expeditious And Cost-Effective Commercial Deployment

Unsurprisingly, incumbent EBS licensees and their representatives support using local priority windows that would enable them to have a first right to acquire unassigned EBS

[47] Sprint Comments at 9.

licenses.[48] The sole basis for this approach can only be the preservation and expansion of a regime that has led to extensive non-use of spectrum and created cash flow to those licensees that obtained their licenses before 1996 – when the public internet was an academic concept and schools and universities had few options for distance learning. Suggesting that educational institutions may be in the best position to assess their needs[49] misses the entire point of this proceeding, which is "to encourage and facilitate more efficient use of this spectrum,"[50] not to recycle old processes that have outlived their purposes. Other commenters make clear that a primary purpose of the local priority window process would be to further enrich incumbent licensees who "will need this additional spectrum depth whether they intend to operate themselves, to lease a portion of their spectrum, or to have something of value to assign to a commercial entity."[51] The first of these three reasons is a red herring given the myriad of other platforms by which licensees can receive broadband services, and the latter two confirm the parochial middleman approach that manufactures transactional costs and promotes marketplace inefficiencies that will deter the ability of spectrum to help bridge the digital divide. To quote WCA, "[t]he underlying policy rationale that provided educators with priority access to dedicated spectrum no longer exists. The best holder of a license to a scarce resource is one who will utilize the license."[52]

The local priority window proposal drew fire even from within the educational community because it would favor incumbents over potential new licensees. The California K-12 High Speed Network asks the Commission to allow educational institutions without EBS

[48] *See* NEBSA/CTN Comments at 9; Voqal Comments at 21; Bridge Comments at 6-8; EBPARC Comments at 4; Comments of Rural EBS Coalition, WT Docket 18-20 (filed Aug 8, 2018), at 1-2.
[49] *See* Nebraska Comments at 9.
[50] *NPRM* at 5-6 (¶ 9).
[51] Bridge Comments at 6.
[52] WCA Comments at 24.

licensees to have the first priority for new licenses.[53] AASA points out that "[n]ot unexpectedly, their proposal heavily favors the roughly 1,300 incumbents, many of which are not schools in the traditional sense, and aims mainly to increase their lease revenue."[54] As R Street Institute observed, "[e]ven if the Commission is correct that local authorities have special insight into what is best for the educational needs of their communities, that fact does not require giving them priority access to spectrum."[55] The chasm within the educational community reveals not only the shortcomings of the local priority window approach, but exposes the difficulties in designing a process that necessarily chooses winners and losers – in this case, from among only educational institutions.

Those commenters who, like WISPA,[56] oppose opening local priority windows to award licenses for unassigned 2.5 GHz spectrum, offered compelling reasons to reject that approach.[57] NTCA agrees with WISPA that it would be incongruous for the Commission to increase flexibility for existing licensees while imposing a new regulatory regime that would hamper investment in new spectrum, observing that "[t]o create priority licenses while simultaneously releasing the spectrum from restrictive use, creates a fallacy that the spectrum will be used to serve primarily educational purposes and sets the stage for potential windfalls for parties who

[53] California K-12 Comments at 22.
[54] AASA Comments at 6-7. *See also* Letter from Kelly M. Anderson, President, Amelia Educational Foundation, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-120 (July 20, 2018), at 2 ("Educational Institutions have proven themselves to be the best choice for a holder of this spectrum, as they are most likely to lease excess capacity."). This lays bare the real motives behind the positions taken by many EBS licensees, and demonstrates why those educational institutions that do not hold licenses are interested in having dedicated access to unassigned spectrum.
[55] R Street Comments at 7.
[56] *See* WISPA Comments at 14-17.
[57] *See* WCA Comments at 24-29; Sprint Comments at 10-11; R Street Comments at 7-8; *see also* Comments of AT&T, WT Docket 18-120 (filed Aug. 8, 2018), at 9-11; Comments of Midcontinent Communications, WT Docket 18-120 (filed Aug. 8, 2018) ("Midcontinent Comments"), at 15-17; Comments of NTCA–The Rural Broadband Association, WT Docket 18-120 (filed Aug. 8, 2018) ("NTCA Comments"), at 4.

obtain the spectrum or lease it from educational licensees for commercial use."[58] WCA stated that "the best holder of new licenses will be commercial broadband operators, who will be able to deploy service to the public without having to lease the spectrum to another entity."[59] Similarly, AT&T explained that the alternative of "[h]olding no (or almost no) auctions would delay the allocation of this spectrum to its highest valued use – which will typically be for 5G service – and in many cases may result in permanent misallocations of EBS spectrum."[60]

In sum, WISPA sees no benefit in establishing a local priority window licensing scheme. The record exposes what would happen if such a process were to be imposed – incumbents and potential new entrant educators would fight amongst themselves for the right to lease spectrum to commercial entities that would provide the same commercial internet service to support antiquated educational use obligations and service to the public. At a time when the Commission is proposing to remove artificial regulatory barriers to spectrum access, it should not be erecting new obstacles that will delay service and impose lease obligations and transactional fees that encumber use and limit investment. The better option, by far, is to establish an auction scheme that will enable small businesses – including those that will be deploying fixed service using CAF funds – to directly acquire spectrum that they can expeditiously deploy in unserved rural areas.

[58] NTCA Comments at 4.
[59] WCA Comments at 24-25.
[60] AT&T Comments at 10-11. WISPA does not agree that 5G services will, even in typical cases, be the highest and best use of the spectrum. Provision of fixed broadband services to unserved and underserved areas will be a primary use of unassigned 2.5 GHz spectrum, especially in rural areas where coverage benefits can better meet consumer demand.

B. The Commission Should Adopt WISPA's Auction Proposal

In its Comments, WISPA outlined a specific comprehensive auction proposal designed to efficiently allocate unassigned 2.5 GHz spectrum in a manner that would ensure competition. The elements of this proposal are summarized as follows:

- Spectrum would be auctioned according to counties.
- Spectrum would be auctioned in four blocks:
  - A1-A3 and B1-B3 – a 33 megahertz contiguous block of spectrum in the Lower Band Segment
  - C1-C3 and D1-D3 – a 33 megahertz contiguous block of spectrum in the Lower Band Segment
  - A4, B4, C4, D4 and G4 – a 30 megahertz block of contiguous spectrum in the Middle Band Segment
  - G1-G3 – a 16.5 megahertz contiguous block of spectrum in the Upper Band Segment
- No bidder would be permitted to acquire more than 63 megahertz of spectrum.[61]

Based on its review of the record, WISPA maintains its belief that this design best balances the interests of stakeholders and the public's interest in gaining access to spectrum to meet demand for broadband services.

Geographic Area

The record reflects support for auctioning 2.5 GHz spectrum by counties.[62] As WCA stated, "[u]sing counties as the geographic area for new licenses will not only be consistent with expanded GSAs afforded existing licensees, but will also provide an appropriate balance between the desire of small operators to have the smallest viable auctioned service areas and the technical characteristics of the 2.5 GHz band that argue against even smaller service areas, such

[61] WISPA Comments at 20-22.
[62] *See* WCA Comments at 18-20; NTCA Comments at 5-6.

as census blocks."[63] WISPA also agrees with NTCA, which offered a number of convincing reasons why county-based licenses would be preferred:

> County-sized licenses would accommodate a variety of business models. Bidders with geographic build out plans could target spectrum according to their needs without concerns of losing spectrum in a strategic census tract. Rural providers would have the ability to obtain spectrum in just the rural areas they intend to serve and nothing would preclude a larger provider from aggregating county licenses for a larger business plan.[64]

It appears that no party supported licensing in areas smaller than counties, but a few commenters suggested using larger areas such as nationwide[65] or by PEA or BTA.[66] A nationwide auction most certainly would favor large companies that could acquire spectrum to foreclose its use by smaller companies that have a strong desire to serve the rural areas covered by the unassigned spectrum. This motive is borne by the fact that no entity (except Sprint, the largest holder of 2.5 GHz spectrum) could acquire a near-nationwide footprint given the hodge-podge of unassigned spectrum. Moreover, AT&T does not suggest what performance requirements would apply, raising concerns about spectrum warehousing that will prohibit deployment as large carriers focus on serving urban areas with 5G services at some point in the future. Likewise, Sprint's proposal to auction unassigned spectrum by PEA or BTA appears to be a transparent attempt to expand license areas to a level where smaller companies could not bid – bidders should not be required to bid for areas that are significantly larger than the targeted rural areas they desire to serve. Even so, as NTCA pointed out, "[c]ounties 'nest' into larger geographic service areas and operators would have the ability to secure licenses that correspond

[63] WCA Comments at 19.
[64] NTCA Comments at 6.
[65] AT&T Comments at 6.
[66] *See* Sprint Comments at 11. WISPA explained in its Comments why it prefers counties for future 2.5 GHz licensing but not for licensing of Priority Access Licenses in the Citizens Broadband Radio Service. *See* WISPA Comments at 19.

to their current footprints"[67] and create the "consistency with the existing BRS licensing framework" that Sprint favors.[68]

Spectrum Blocks

WISPA was one of a few commenters to put forth a proposal on the spectrum groupings the Commission should auction. Its proposal is intended to balance the needs of bidders to acquire enough spectrum to justify investment and deployment costs without enabling a single bidder to acquire too much spectrum that would leave spectrum scraps of limited commercial utility. WCA took the same spectrum licensing approach as WISPA with respect to the Middle Band Segment (30 megahertz between 2572-2602 MHz) and the Upper Band Segment (16.5 megahertz between 2673.5-2690 MHz), but proposed auctioning the entire Lower Band Segment (71 MHz between 2501-2572 MHz) as a single block instead of in two blocks.[69] Adopting WCA's proposal would create the serious risk that, in many areas, only one bidder would acquire a meaningful amount of spectrum (the Lower Band Segment) leaving little margin for another bidder desiring to acquire the 46.5 megahertz of Middle Band Segment and Upper Band Segment spectrum. Indeed, it is not difficult to imagine an entity bidding on the Upper Band Segment to deny a bidder from acquiring the 45 megahertz of spectrum that is regarded as the minimum amount necessary to warrant investment and deployment.[70] By contrast, WISPA's

[67] NTCA Comments at 6.
[68] Sprint Comments at 11.
[69] *See* WCA Comments at 19. Both WISPA and WCA supported auctioning of available BRS spectrum at the same time the Commission auctions unassigned EBS spectrum. *See* WISPA Comments at 17 n. 39; WCA Comments at 20. According to WCA, there are 17 BTAs that are not licensed, most of which are in rural areas. *See* WCA Comments at 20 n. 48. WISPA prefers that the Commission re-auction this spectrum in county units and not BTAs (or anything else) to promote continuity with its EBS licensing scheme. It will also be easier to pair available BRS spectrum with available EBS spectrum – for instance, Channels E4and F4 could be added to the Middle Band Segment to create a 42-megahertz block, and Channels H1-H3 could be combined with the G1-G3 channels to create a 33-mehahertz block. Channels E1-E3/F1-F3 would, consistent with WISPA's proposal, be offered as a single 33-megahertz block.
[70] *See* WISPA Comments at 21.

proposal allows for in-auction switching among the four blocks to maximize the ways in which a bidder can acquire the minimum amount of spectrum. For example, a bidder could combine the A1-A3/B1-B3 block with either the Middle Band Segment or the Upper Band Segment to acquire between 46.5 and 63 megahertz of spectrum. Or, a bidder could achieve the same result by combining the B1-B3/C1-C3 block with either the Middle Band Segment or the Upper Band Segment.

Licensing unassigned spectrum according to channel groups, as Select Spectrum suggests, would perpetuate the "split" channel blocks that creates inefficiencies.[71] When robust broadband service demands throughput and capacity that is more efficiently enabled through large amounts of contiguous spectrum, the Middle Band Segment channels are of reduced value in combination with the other three channels in the group. By contrast, licensing the 30 megahertz of Middle Band Segment spectrum as a block, as both WISPA and WCA propose, reduces the stranded channel encumbrance and vastly increases the value of the spectrum.[72]

Spectrum Aggregation Limits

WISPA urged the Commission to establish a limit of 63 megahertz on the amount of unassigned spectrum that a bidder could acquire at auction, assuming the availability of all five channel groups.[73] Though less specific, NTCA similarly asked the Commission to establish limits to prevent a single bidder from acquiring all of the available spectrum.[74] The Commission should impose the reasonable limits WISPA recommends in order to encourage meaningful

[71] *See* Comments of Select Spectrum, WT Docket 18-120 (filed Aug. 8, 2018) ("Select Spectrum Comments"), at 3.
[72] It is not feasible for the Commission to auction spectrum in 5 megahertz multiples, as Midcontinent proposes. *See* Midcontinent Comments at 17-18. The math may work in the Middle Band Segment where 30 megahertz of spectrum is in a contiguous block, but not in the Lower Band Segment where 1 megahertz would be left over and in the Upper Band Segment where 16.5 megahertz of spectrum is available and 1.5 megahertz of spectrum would be left over.
[73] *See* WISPA Comments at 21.
[74] See NTCA Comments at 5-6.

participation by more bidders, stimulate active switching and bidding, and ensure competition in the post-auction marketplace.

III. THE COMMISSION SHOULD ADOPT MEANINGFUL PERFORMANCE REQUIREMENTS AND APPLY ITS RENEWAL AND PERMANENT DISCONTINUANCE RULES TO NEW LICENSEES

In its Comments, WISPA supported adoption of the performance requirements proposed in the *NPRM*.[75] For fixed point-to-multipoint services, licensees would be required to demonstrate coverage to 50 percent of the population at the mid-point of the license term and 80 percent of the population at renewal.[76] Other commenters, however, supported applying the standard in Section 27.14(o) of the Commission's rules, which would require "substantial service" to be provided four years from licensing.[77] Pursuant to Section 27.14(o), "substantial service" can be demonstrated in a number of ways, including providing coverage to 30 percent of the population, "providing specialized or technologically sophisticated service that does not require a high level of coverage to benefit consumers," and "providing service to niche markets or areas outside the areas served by other licensees."[78] In WISPA's view, the 30 percent coverage alternative may be appropriate for larger areas, such as BTAs, but may not be suitable for smaller county-based licenses. Moreover, the vagaries of the "specialized" and "niche" service alternatives would be challenging for Commission staff to apply. Although WISPA is open to population-based coverage that differs from the 50 percent and 80 percent benchmarks it supported for point-to-multipoint services, the Commission should not adopt any performance requirements that are based on ill-defined, hard-to-measure alternatives that exist in Section 27.14(o).

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[75] *See* WISPA Comments at 22-23.
[76] *See id.*
[77] *See* NEBSA/CTN Comments at 20; Sprint Comments at 12; HITN Comments at 7; Select Spectrum Comments at 6; South Florida EBS Licensees Comments at 7.
[78] 47 C.F.R. § 27.14(o)(1).

The record shows strong support for applying the renewal and permanent discontinuance rules for wireless services the Commission adopted last year.[79] The Commission should adopt its proposal.

Conclusion

The record largely supports the proposals advanced by WISPA which, if adopted, would promote flexibility and encourage investment in spectrum that will accelerate resolution of the digital divide that unfairly separates rural and urban consumers. WISPA appreciates the opportunity to work with other stakeholders and the Commission to help finalize, rationalize, and modernize rules for the 2.5 GHz band.

Respectfully submitted,

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[79] *See Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Disaggregation Rules and Policies for Certain Wireless Radio Services*, Second Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 8874 (2017).